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PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Martin et al**

Serial No.: **10/026,302**

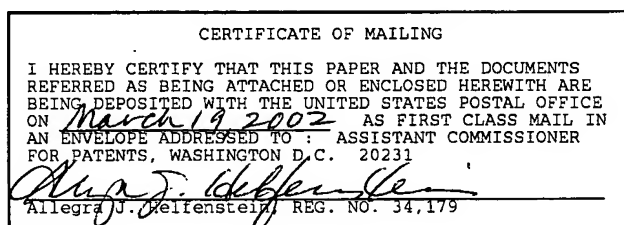
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For: **CROWN ETHER DERIVATIVES**

**Information Disclosure Statement**

Assistant Commissioner for Patents  
Washington, D.C. 20231



Dear Sir:

In accordance with their duty of disclosure under 37 CFR §§ 1.97 and 1.56, Applicants hereby disclose the following references.

The following references are cited in the specification:

**U.S. PATENTS**

- U.S. Patent No. 4,603,209 Tsien et al, (1986)
- U.S. Patent No. 5,049,673 Tsien et al (1991)
- U.S. Patent No. 4,849,362 DeMarinis et al (1989)
- U.S. Patent No. 5,453,517 Kuhn et al (1995)
- U.S. Patent No. 5,501, 980 Katerinopoulos et al (1996)
- U.S. Patent No. 5,459,276 Kuhn et al (1995)
- U.S. Patent No. 5,134,232 Tsien et al (1992)
- U.S. Patent No. 5,405,975 Kuhn et al (1995)
- U.S. Patent No. 5,830,912 Gee et al (1998)
- U.S. Patent No. 4,774,339 Haugland (1988)
- U.S. Patent No. 5,187,288 Kang et al (1993)
- U.S. Patent No. 5,248,782 Haugland et al (1993)
- U.S. Patent No. 5,274,113 Kang et al (1993)
- U.S. Patent No. 5,433,896 Kang et al (1995)
- U.S. Patent No. 4,810,636 Corey (1989)

U.S. Patent No. 4,812,409 Babb et al (1989)  
U.S. Patent No. 5,227,487 Haugland et al (1993)  
U.S. Patent No. 4,945,171 Haugland et al (1990)  
U.S. Patent No. 6,162,931 Gee et al (2000)  
U.S. Patent No. 5,132,432 Haugland et al (1992)  
U.S. Patent No. 5,696,157 Wang et al (1997)  
U.S. Patent No. 5,268,486 Waggoner et al (1993)  
U.S. Patent No. 6,130,101 Leung et al (2000)  
U.S. Patent No. 5,714,327 Houthoff, et al (1998)  
U.S. Patent No. 5,208,148 Haugland et al (1993)  
U.S. Patent No. 5,338,854 Kang et al (1994)  
U.S. Patent No. 5,773,227 Kuhn et al (1998)

#### OTHER PUBLICATIONS

Wang, et al., J. WUHAN UNIV 2, 73 (1991)  
Haugland, HANDBOOK OF FLUORESCENT PROBES AND RESEARCH CHEMICALS,  
1996 pp., 503-544

The Wang reference, as indicated in the specification at page 17, first paragraph, discloses a carbocyanine dye that is fused to a crown ether. The crown ether described in the reference is different from that of Applicants in that the reference crown ether contains no nitrogens as required by Applicants' invention. A translation of the abstract appears at the end of the reference (p. 77). Applicants do not have a detailed translation of the reference in their possession.

Applicants also disclose the following additional references that are not noted in the specification.

#### U.S. PATENTS

U.S. Patent No. 4,367,072 Vögtle et al. (1983)  
U.S. Patent No. 4,843,158 Smith (1989)  
U.S. Patent No. 4,859,606 Cram et al. (1989)  
U.S. Patent No. 4,994,395 Chapoteau et al. (1991)  
U.S. Patent No. 5,096,831 Chapoteau et al. (1992)  
U.S. Patent No. 5,136,033 Masilamani et al. (1992)  
U.S. Patent No. 5,162,525 Masilamani et al. (1992)  
U.S. Patent No. 5,958,782 Bentsen et al. (1999)

U.S. Patent No. 5,981,746 Wolfbeis et al. (1999)

U.S. Patent No. 6,001,999 Wolfbeis et al. (1999)

U.S. Patent No. 6,124,135 Leiner et al. (2000)

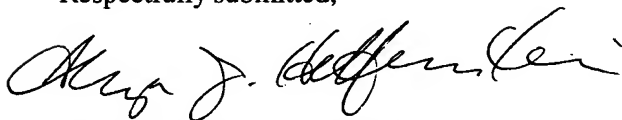
OTHER PUBLICATIONS:

R. Haugland, MOLECULAR PROBES HANDBOOK OF FLUORESCENT PROBES AND RESEARCH  
CHEMICALS, 8<sup>th</sup> Edition, on CD-ROM

The patent references disclose a variety of crown ether derivatives that are distinct from those of Applicants. The Haugland reference is cited to show the state of the art, and is cumulative of other Molecular Probes marketing publications noted in the specification of the subject application.

For the convenience of the Examiner, all of the above-identified references, whether or not cited in the specification of the subject application, are noted on the modified Form 1449 enclosed herewith, and copies of the references are included. In the event that there are any questions relating to this paper, or the application in general, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that the prosecution of the application may be expedited.

Respectfully submitted,



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